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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,723	07/15/2003	Akio Ogawa	A1585.0001	7415

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EXAMINER	
SANTIAGO, MARICELI	
ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/618,723	OGAWA ET AL.	
	Examiner	Art Unit	
	Mariceli Santiago	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 15 July 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai et al. (JP 11-339969) in view of Egusa et al. (US 5,343,050).

Regarding claim 1, Arai discloses an organic EL display element (Fig. 1) comprising an anode (2), an organic layer (3), and a cathode (4) which are laminated in this order on a substrate (1), the display element further comprising a stress relaxation layer (5) formed on the cathode (4) after the cathode is formed, the stress relaxation layer (5) being a film which exhibits tensile stress when the film stress of the cathode is compressive stress or exhibits compressive stress when the film stress of the cathode is tensile stress (Abstract). Arai is silent in regards to the limitation of the organic layer consisting of plural material and layers and an electron injection layer within the EL element. However, in the same field of endeavor, Egusa discloses a conventional organic EL display element in which an organic layer consisting of plural materials and layer and an electron injection layer are laminated as part of the El display element structure. Accordingly, since Arai is concerned with the reduction of stress on the cathode element of organic EL devices, one of ordinary skill in the art would reasonable expect the successful performance of the protective layer disclosed by Arai in such conventional organic EL devices which further comprise an organic EL layer consisting of plural material and layers and an electron injection layer within the EL element. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art the use of the

stress protective layer disclosed by Arai in organic El devices of Egusa in order to reduce the stress on the cathode element of the organic EL devices.

Regarding claim 2, Arai discloses an organic EL display element wherein the absolute value of the sum of the film stresses of the cathode and the stress relaxation layer is 10 (N/m) or less (Abstract).

Regarding claim 3, Arai discloses an organic EL display element wherein the stress relaxation layer is a stress relaxation layer made of at least one type selected from the group consisting of Cu, Ni, Mo and Ti.

Regarding claims 4 and 5, Arai discloses an organic EL display element wherein the absolute value of the sum of the film stresses of the cathode, the stress relaxation layer and the other layers is 10 (N/m) or less (Abstract).

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaoka et al. (JP 2000-133462) in view of Egusa et al. (US 5,343,050).

Regarding claim 1, Sasaoka discloses an organic EL display element (Fig. 8) comprising an anode (12), an organic layer (15) consisting of plural materials and layers, and a cathode (16) which are laminated in this order on a substrate (11), the display element further comprising a stress relaxation layer (17) formed on the cathode (16) after the cathode is formed, the stress relaxation layer (17) being a film which exhibits tensile stress when the film stress of the cathode is compressive stress or exhibits compressive stress when the film stress of the cathode is tensile stress (Paragraph5 [0045-0051]). Sasaoka is silent in regards to the limitation of the EL element comprising an electron injection layer. However, in the same field of endeavor, Egusa discloses a conventional organic EL display element in which an electron injection layer is laminated as part of the El display element structure. Accordingly, since

Sasaoka is concerned with the reduction of stress on the cathode element of organic EL devices, one of ordinary skill in the art would reasonable expect the successful performance of the protective layer disclosed by Sasaoka in such conventional organic EL devices which further comprise an electron injection layer within the EL element. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art the use of the stress protective layer disclosed by Sasaoka in organic EL devices of Egusa in order to reduce the stress on the cathode element of the organic EL devices.

Regarding claim 2, Sasaoka discloses an organic EL display element wherein the absolute value of the sum of the film stresses of the cathode and the stress relaxation layer is 10 (N/m) or less (zero stress, Paragraph5 [0045-0051]).

Regarding claim 3, Sasaoka discloses an organic EL display element wherein the stress relaxation layer is a stress relaxation layer made of at least one type selected from the group consisting of titanium and silicon oxide (Paragraph [0049]).

Regarding claims 4 and 5, Sasaoka discloses an organic EL display element wherein the absolute value of the sum of the film stresses of the cathode, the stress relaxation layer and the other layers is 10 (N/m) or less (zero stress, Paragraph5 [0045-0051]).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (571) 272-2464. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2/20/05

Mariceli Santiago
Patent Examiner
Art Unit 2879